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REPORT OF A CASE IN WHICH LAPAROTOMY WAS PERFORMED FOR INTESTINAL PERFORATION OCCURRING IN THE COURSE OF TYPHOID FEVER.*

By L. W. HOTCHKISS, M. D.,
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On the 13th of August, 1895, I was asked to see with Dr. Knickerbocker, at the Manhattan Hospital, a case in which he had made the diagnosis of intestinal perforation. The patient was a Swede, twenty-four years of age, a carpenter by trade, who had been admitted to the hospital, August 7th, with the following history: He had been in the hospital a year before, suffering from an intermittent fever, for which he had been treated and discharged cured. His present illness began about ten days before his admission, with chills, fever, headache, and anorexia, accompanied with great prostration. He had not been confined to bed all the time, however, and, though he felt very wretchedly, had managed to walk to the hospital. The examination of heart and lungs was negative. There were several small, rose-colored spots over the chest and abdomen, which disappeared on pressure. The

* Read before the Society of Alumni of Bellevue Hospital, November 6, 1895.

temperature was 103·8° F. A diagnosis of typhoid fever was made, and treatment by Brandt's method of baths instituted. The patient bore the baths well, his tongue grew moist, and his pulse improved.

On the night of August 12th he complained suddenly of intense abdominal pain, and was ordered morphine. Next morning he was seen by Dr. Knickerbocker, the attending physician, who suspected perforation, and asked me to see the case with him, with a view to operation if that should be deemed advisable.

On examination, the abdomen was found considerably distended, exquisitely tender on pressure, and the patient suffering constantly from general abdominal pain. His face was anxious and drawn; his intelligence perfectly good. He had vomited. Pulse rapid; temperature high. The seriousness of his condition was presented to him, and the possibility of relief by surgical means explained to him. He said he was anxious to have something done, and would willingly submit to operation to obtain any relief from his terrible pain. He was transferred to the surgical side, and operated upon as soon as preparations could be made.

Ether was used as an anæsthetic, and a median incision, three inches and a half in length, made between the umbilicus and the pubes. On incising the peritonæum, a large quantity of cloudy, serous fluid, containing big flakes of fibrin and probably some fæcal matter, gushed out. There was but little odor to this fluid. The peritonæum covering the small intestines and everywhere was deeply congested, and covered here and there by patches of soft fibrin. There were no adhesions. Enlarged lymphatic glands in the mesentery were distinctly visible and palpable. The cavity was flushed out thoroughly with hot normal salt solution, and a search for the perforation was at once made. It was easily found in the lower part of the ileum, about five inches above the ileo-cæcal junction and on the anterior wall of the gut. The perforation was quite small, its edges ragged, and the tissues surrounding it infiltrated and much softened. Through the wall of the gut the thickening, corresponding apparently to the enlarged

Peyer's patch, could be felt. The perforation and softened area about were turned in longitudinally for an inch or more and sutured with fine black silk after Lembert's method. The turning in of the intestinal wall well beyond the edges of the ulcer brought into contact a considerable area of peritoneal surface. After again thoroughly flushing the whole peritoneal cavity with hot sterile normal salt solution, the diseased portion of the ileum was surrounded and isolated by packing of sterile gauze. The upper end of the abdominal wound was closed, the lower left open for the gauze drainage. After the operation the pulse continued very weak, but the patient recovered consciousness and said his pain was less. He continued to sink, however, and died about four hours and a half after the operation, his temperature rising to 108° F.

An examination of the abdominal cavity after death showed essentially the same conditions as described. There were no other perforations found, and there had apparently been no leakage from the sutured rent.

The portion of the ileum which included the sutured area was removed and sent to the Carnegie laboratory. Sections through the sutured portion of gut showed that sufficient fibrin had already been thrown out to hold the sutured peritoneal surfaces in firm apposition.

In putting on record this case in which laparotomy was done for perforating typhoid ulcer, one more is added to the small number of cases in which an attempt has been made to relieve this fatal complication of typhoid fever by surgical means.

According to a recent article by Dr. F. H. Wiggin, there have been only seventeen well-authenticated cases of perforation of the gut in typhoid fever reported in which a laparotomy was performed, and out of these seventeen patients so operated upon three recovered.

Of the three successful cases, one belongs to Dr. Van Hook, a second to a Russian surgeon, Dr. Netschajan, the third to Dr. Robert Abbe, of this city.

Realizing that in most of these cases we have to deal with a very rapid and fatal form of peritonitis, our only hope seems to lie in an early operation. In the case reported, about ten or twelve hours had elapsed since the perforation had occurred, and general septic peritonitis had supervened, rendering the case practically hopeless. I feel that in perforations of the gut in typhoid fever we may not always have to deal with an equally rapid and fatal infection. As in perforative appendicitis different forms of peritonitis may result, varying from a fibro-purulent peritonitis more or less extensive to an acute septic general peritonitis or peritoneal sepsis which is rapidly fatal, so in typhoid fever it would seem that in some cases where the ulcerative process is not too rapid and the infection not too intense and overwhelming, a peritonitis might result which could be as successfully treated by an early laparotomy as are many cases of this disease due to perforative appendicitis.

Realizing that in these cases we have to work with the chances of a successful issue decidedly against us, and upon a patient in the worst possible condition generally for operation, I feel that it is only fair to give the patient the possible chance, small though it be. I feel that the operation is not only justifiable in many cases, but should be offered to the patient as giving some hope in a condition otherwise practically without it.

I think the operation should be classed with tracheotomy for laryngeal stenosis, and with herniotomy for the relief of strangulation—*i. e.*, as an occasional life-saving procedure. It is not too much to expect, perhaps, that some time in the near future the surgeon will be oftener called in cases of typhoid fever where the diagnosis of perforation is made.

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